Energy Efficiency Education Program

A. Description

The Energy Efficiency Education Program ("Program") is an energy efficiency program available to students in grades K-12 enrolled in public and private schools who reside in households served by Duke Energy Progress in North and South Carolina. The current curriculum administered by The National Theatre for Children ("NTC") provides performances in elementary, middle and high schools.

The Program provides principals and teachers with an innovative curriculum that educates students about energy, resources, the relationship between energy and resources, ways energy is wasted and ways they can be more energy efficient. The centerpiece of the curriculum is a live theatrical production focused on concepts such as energy, renewable fuels and energy efficiency and performed by two professional actors. Teachers receive supportive educational materials for their classrooms and assignments for students to take home. The workbooks, assignments, and activities meet state curriculum requirements.

School principals are the main point of contact for scheduling their school's performance. Once the principal confirms the performance date and time, all materials are scheduled for delivery two weeks prior to the performance. Materials include school posters, teacher guides, and classroom and family activity books.

Students are encouraged to compete a request form with their family (found in their classroom and family activity book, as well as online), to receive an Energy Efficiency Starter Kit. The kit contains specific energy efficiency measures to reduce home energy consumption. It is available at no cost to eligible Duke Energy customer households at participating schools.

Audience

Eligible participants include the Company's residential customers, with school-age children enrolled in public and private schools, who reside in households served by Duke Energy Progress.

B &C. Impacts, Participants and Expenses

2018 YTD Results	Annual Forecast	Actual at 12/31/2018	Variation
Savings (MWH)	1,997	2,563	566
Savings (MW)	0.20	0.77	.57
Participants		9,013	
2018 Program Expenses		$676,815	

D. Qualitative Analysis

Highlights

The Company is supporting arts and theatre in schools while providing an important message about energy efficiency for students through an innovative delivery channel. Enhancing the message with a live theatrical production captivates the students' attention and reinforces the classroom curriculum materials provided.

For the 2018-2019 school year, elementary students enjoy watching *Showdown at Resource Ranch* performed by two professional actors who lead the students through an action-packed Wild West adventure, all while teaching about energy conservation and resources. In this 25-minute play, Sheriff Carrie Gooper is on the case of a natural resource crisis throughout Dodge Ball City – but that's not all she has to deal with … she's also been challenged to a showdown by none other than notorious bandit, Billy the Kit! With the help of the students, will the sheriff be able to face Billy and find out what in

tarnation is going on with the city's resources?

The Resource Force is performed by two professional actors who lead the students through a series of comical improvisational shenanigans, all while teaching about energy conservation and resources. In this 40-minute show, the middle school students in grades 6-9 will assist the actors in constructing the show in front of them, as it happens, with their very own suggestions – so each show is unique to the audience that creates it! The show is a series of improvised comedy sketches between characters in all sorts of hilarious situations. Before each scene, actors interact with the audience and get ideas to use during the sketch, such as their favorite bands or a household pet. The ideas are incorporated into the show and may change the course of a scene.

What's Your Goal? is performed by two professional actors who lead the students through a series of interactive comedy sketches, all while teaching about the importance of energy efficiency.

In this 45-minute show, the high school students in grades 9-12 will assist with the improvisation process via audience participation and suggestions. Volunteers will be brought up on stage for games like "Carbon Footrace," puzzles, general improv shenanigans and energy-oriented trivia – so each performance is unique to the group of students that help create it!

The objective of the program is to encourage high school science classrooms, environmental clubs and Green Teams to champion energy conservation in their schools and communities. *What's Your Goal?* also offers the opportunity for the students (and staff) to save energy at home by providing Energy Kits that contain items to conserve electricity and water.

From January through December 2018, a total of 192 schools hosted 308 performances in the Company's DEP service territory, reaching approximately 71,906 students and spurring the distribution of 9,013 kits.

Once an eligible customer submits a completed energy efficiency, the Energy Efficiency Starter Kit is shipped for delivery within two to four weeks. To ensure customer satisfaction with the Energy Efficiency Starter Kit and the installation of items, customers receive an email reminder monthly after the kit delivery to encourage families to return their Business Reply Card (BRC) verifying installation of measures. Qualified households that submit their energy efficiency survey and return the BRC are automatically entered into the household contest drawing, sponsored by NTC.

Additionally, school and classroom contests encourage sign-ups, and NTC awards checks to schools whose students, along with their families, completed home energy surveys and received energy efficiency kits. In the fall and spring of each year, a drawing is held selecting one school and one household contest winner. Principals, teachers and students may view their school's progress and compare the number of sign-ups to other schools via the website, www.trackmysignups.org.

E. Marketing Strategy

The Company works through the vendor to market to schools. The marketing channels may include but are not limited to the following:

- Direct mail (letters to school administrators)
- Email
- In-Person
- Program Website
- Events or assemblies
- Printed materials for classrooms
- Social media promotions

These marketing efforts engage students and their families in energy conservation behavior and

provide energy saving opportunities through the Energy Efficiency Starter kits.

In Q1 2019, the Program plans to release a gamification application that will further drive participation in the program and provide an additional channel of on-going engagement with the students.

F. Evaluation, Measurement and Verification

The next evaluation work is combined Duke Energy Carolinas and Duke Energy Progress process and impact evaluation. Evaluation activities began third quarter of 2018, with a final report delivery date of First Quarter 2019.

The evaluator will verify impacts through engineering estimates. Participant surveys were also utilized to refine in-service rates, provide inputs into other algorithm variables, and help establish free ridership and spillover.

The process evaluation will help uncover participants' program awareness, identify opportunities to improve program operations, and measure participants' satisfaction with measures provided through the kit.

Income-Qualified Programs

A. **Description**

Neighborhood Energy Savers

The purpose of Duke Energy Progress's ("DEP") Neighborhood Energy Saver program (the "Program") is to reduce energy usage through the direct installation of energy efficiency measures within the households of income-qualified residential customers. The Program utilizes Honeywell Building Solutions, which was awarded the contract through a competitive bid process, to (1) to identify appropriate energy conservation measures through an on-site energy assessment of the residence, (2) to install a comprehensive package of energy conservation measures at no cost to the customer, and (3) to provide one-on-one energy education. Program measures address end-uses in lighting, refrigeration, air infiltration and HVAC applications.

Program participants receive a free energy assessment of their homes followed by a recommendation of energy efficiency measures to be installed at no cost to the resident. A team of energy technicians install applicable measures and provide one-on-one energy education about each measure, emphasizing the benefit of each and recommending behavior changes to reduce and control energy usage. The goal is to serve a minimum of 4,500 households each year.

Pay for Performance

The Pay for Performance Pilot Program will provide payments, based on kilowatt-hour ("kWh") savings, to local non-profit organizations that provide weatherization and other energy saving upgrades to residential low-income households. These payments are intended to assist these organizations in expanding the number of customers they serve through their programs. The Program is also intended to leverage funding from other third-party sources.

The Company is proposing that this Pilot remain in place for thirty-six months and begin in Buncombe County, North Carolina.

Audience

Neighborhood Energy Savers

The Program is designed for individually-metered residential homeowners and tenants within DEP. Implementation of the program is done in neighborhoods designated by DEP. Income-eligible neighborhoods must have at least 50% of households with income equal to or less than 200% of the poverty level set by the U.S. Department of Energy. Participants are only able to participate in the Program once.

Pay for Performance

The Pay for Performance Pilot Program is designed for non-profit agencies providing weatherization and energy efficiency measures to low-income, individually-metered residential homeowners and tenants with incomes equal to or less than 200% of the poverty level living within DEP service territory.

B & C. Impacts, Participants and Expenses

2018 YTD Results	**Annual Forecast**	**Actual at 12/31/2018**	**Variation**
Savings (MWH)	2,033	2,279	246
Savings (MW)	0.31	0.35	0.04
Participants		5,047	
2018 Program Expenses		$1,845,739	

D. Qualitative Analysis

Highlights

Neighborhood Energy Savers

During 2018 the Program offered free walk-through energy assessments to 5 qualifying neighborhoods: Florence, SC; Asheville, NC; Jacksonville, NC; Lake City, SC and Sumter, SC. The program moved to and is currently working in Spring Lake, NC in January 2019. Neighborhood events included support from community groups and speakers such as elected officials, community leaders and community action agency representatives.

The program has been very successful and widely accepted by the eligible Duke Energy Progress customers. Nearly 70 percent of the eligible customers in the neighborhoods where the program has been offered have participated.

Pay for Performance

This program will launch January 1, 2019.

Issues

Neighborhood Energy Savers

The program continues to operate with minimal issues. The implementers are constantly striving to install the best quality measures and to use techniques that will motivate better customer behavior responses and participation.

Pay for Performance

None at this time since program has not officially launched.

Potential Changes

Neighborhood Energy Savers

None at this time.

Pay for Performance

None at this time.

E. Marketing Strategy

Neighborhood Energy Savers

Current methods of marketing the program have been very successful in driving participation. The Company will continue the following marketing strategies in 2018:

Direct mail (letters and postcards to qualifying customers)
Secure local support from community leaders and organizations
Community outreach events
Publicized kickoff events
Door-to-door canvassing

These marketing efforts are designed to create customer awareness of the Program, educate customers on energy saving opportunities and emphasize the convenience of Program participation.

F. Evaluation, Measurement and Verification

The process and impact evaluation report for the Neighborhood Energy Saver portion of the Program is scheduled for completion in the third quarter of 2019 upon the program's transition to LEDs. This will be a combined evaluation with DEC. No EM&V for Pay for Performance is planned at this time.

A. Description

The Home Energy House Call Program ("Program") is offered under the Energy Assessment Program where Duke Energy Progress, LLC ("Company") partners with several key vendors to administer the Program.

The Program provides a free in-home assessment performed by an energy specialist certified by the Building Performance Institute ("BPI"). The BPI-certified energy specialist completes a 60- to 90-minute walk through of a customer's home and analyzes energy usage to identify energy savings opportunities. The energy specialist discusses behavioral and equipment modifications that use less energy. The customer also receives a customized report identifying actions the customer can take to increase their home's efficiency. The following are examples of recommendations that might be included in the report:

Turn off vampire load equipment when not in use.
Use energy efficient lighting.
Use a programmable thermostat to manage heating and cooling usage.
Replace old equipment.
Add insulation and seal the home.

In addition to a customized report, customers receive an energy efficiency starter kit with a variety of measures that can be directly installed by the energy specialist. The kit includes measures such as energy efficient lighting, a shower head, faucet aerators, outlet/switch gaskets, weather stripping and a booklet of energy saving tips.

Audience

Residential customers that own a single-family residence with central air, electric heat or an electric water heater and that have at least four months of billing history are eligible to participate in the Program.

B & C. Impacts, Participants and Expenses

2018 YTD Results	Annual Forecast	Actual at 12/31/2018	Variation
Savings (MWH)	2,720	7,752	5,032
Savings (MW)	0.45	0.94	0.48
Participants		37,923	
2018 Program Expenses		$1,851,965	

D. Qualitative Analysis Highlights

The program conducted 6,707 assessments and installed 31,216 additional LEDs in 2018. The program continues to focus on maximizing measures installed as well as cross promoting other Duke Energy programs and offerings.

Issues

The program continues to coordinate closely with the vendor to monitor incoming demand, to balance marketing and to ensure adequate appointment slots are available.

Potential Changes

- Continuing to optimize the online scheduling tool to enhance the customer experience
- Upgrading free measures to include pipewrap and additional bathroom aerators where relevant.
- Evaluation of upgradeable measures in field such as hand-held showerheads, smart thermostats, specialty bulbs, blower door option.
- Evaluating the incentive offerings to maximize savings and impacts as well as customer acceptance
- Including for townhomes/condos for audit eligibility
- Implementing post audit follow up with reminders of recommendations/referrals

Currently, Program implementers are evaluating the need for a plan to obtain customer feedback proactively and identify improvement or EM&V opportunities.

E. Marketing Strategy

The Program continued to use a multichannel marketing approach including targeted mailings to pre-qualified residential customers, bill inserts, online promotions and online video. Examples of online messages, bill inserts and direct mail promotions are available in the appendix. For those who elect to receive offers electronically, email marketing is used to supplement direct mail. In between larger initiatives, such as bill inserts, the program utilizes direct mail which can easily be modified based on demand. Core messaging is simple and focuses on key benefits (a free energy assessment from Duke Energy can help save energy and money while also increasing comfort) and three easy steps (you call, we come over, you save).

Home Energy House Call program information and an online assessment request form are available at www.duke-energy.com.

F. Evaluation, Measurement and Verification

The program completed an impact and process evaluation in October 2018, with the summary findings presented at the Fourth Quarter 2018 DEC/DEP Collaborative.

A billing analysis was the primary methodology to determine energy and demand savings. The billing analysis compared the consumption of program participants to future program participants. Engineering estimates for the HEHC kit measures were also conducted to provide insight into the behavioral impacts achieved through the program and to provide impacts for the Additional Bulbs provided to program participants. Participants surveys were used to determine in-service rates and determine free ridership at the measure level.

The process evaluation consisted of participant surveys; results were used to identify barriers to participation and improve program processes.

G. Appendix

Online Banners:

Find savings in every corner. >

Discover savings under your own roof with a free in home energy assessment

Direct Mail:

Bill Inserts:

Pandora

A. Description

The Energy Efficient Lighting Program partners with lighting manufacturers and retailers across North and South Carolina to provide marked-down prices at the register to DEP customers purchasing energy efficient lighting products. Participation continues to be high, and the success of this Program can be attributed to high customer interest in energy efficiency, increased knowledge of the benefits associated with energy efficient lighting, and effective promotion of the Program.

As the Program moves into its ninth year, the Energy Efficient Lighting Program continues to incentivize customers to adopt a wide range of energy efficient lighting products, including LEDs and fixtures. Customer education is imperative to ensure customers are purchasing the right bulb for the application, to obtain high satisfaction with lighting products and to encourage subsequent purchases.

Audience

The Program is available to existing residential and non-residential customers. Customers simply shop for their lighting needs at a wide variety of retail locations. Incentives are provided at the point of purchase.

B & C. Impacts, Participants and Expenses

2018 YTD Results	Annual Forecast	Actual at 12/31/2018	Variation
Savings (MWH)	29,251	32,403	3,152
Savings (MW)	4.92	5.98	1.06
Participants		2,147,254	
2018 Program Expenses		$9,815,496	

D. Qualitative Analysis

Highlights

In 2018, the Program incentivized a total of 2,147,254 measures, including 1,812,060 LEDs and; 335,194 fixtures. The DEP Energy Efficiency Program had 17 lighting retail channels actively participating in 2018. While the top five retail channels account for 71% of the Program sales, all retail channels allow access to the Program for a diverse and geographically wide population of DEP customers. The Program is designed to reach 90% of customers within 30 miles of a participating retail location.

The Program continues to operate efficiently with 80% of overall Program costs going directly to customers in the form of incentives. Additionally, a total of 94% of the Program costs are spent on implementation and administration of the Program, including incentives and management fees. Therefore, only 6% is spent on marketing, labor and other costs.

Issues

No issues at this time.

Potential Changes

The Program will continue to evaluate the market and adjust products and incentive levels as necessary, focusing on specialty applications and strategically targeting underserved customers through select channels and events.

E. Marketing Strategy

The Company will continue the Program marketing efforts in 2018 through the following:

- Point of Purchase materials at the participating retailer locations
- Duke Energy Progress and Program website
- General Awareness Campaigns
- Bill Inserts
- Email
- Online Advertising

Advertised events at key retailers including:

- Direct mail
- Email
- In Store materials (fliers, bag stuffers, posters, banners, etc.)
- Community outreach events (national night out, cultural events, etc.)

These marketing efforts are designed to create customer awareness of the Program, to educate customers on energy saving opportunities, and to emphasize the convenience of Program participation. Additionally, marketing efforts related to in-store events are designed to motivate customer participation.

F. Evaluation, Measurement and Verification

For the Retail Lighting evaluation, the combined DEC/DEP process and impact report was completed in the second quarter of 2018. Both evaluations consisted of engineering estimates of the measures in retail channels to determine gross impacts. Net impacts were determined via sales data modeling.

A. Description

The Save Energy and Water Kit Program ("SEWK") launched in November 2015. The Program is designed to increase the energy efficiency of residential customers by offering customers energy efficient water fixtures and insulating pipe tape for use within their homes.

The SEWK program is offered through a selective eligibility process, enabling eligible customers to request a kit and have it shipped directly to their homes. Customers owning and living in a single-family home with an electric water heater who have not received similar measures through another Company-offered energy efficiency program are eligible for the program. Kits are available in two sizes for homes with one or more full bathrooms and contain varying quantities of shower heads, bathroom aerators, kitchen aerator and insulating pipe tape. Program participants are eligible for one kit shipped free of charge to their home.

Customers are pre-screened based on the eligibility requirements. Marketing channels include both a direct mail business reply card (BRC) and direct email. Customers receiving the BRC may choose to return the BRC, navigate to a redemption website listed on the card, or call a toll-free number to take advantage of the offer. Customers receiving a direct email simply click on a redemption link to redeem the offer online. Upon receiving the order from the customer through one of the methods above, Energy Federation Inc. (EFI), the program vendor, will ship the pre-determined kit to the customer. Due to the unique eligibility requirements of this program, direct mail (BRCs) and direct email are the only two methods being used to solicit customers for participation.

The program has a website in place that customers can access to learn more about the program or to watch videos to aid in installing the kit measures.

Audience

The Program is available to customers residing in a single-family home with an electric water heater who have not received similar measures through another Company-offered energy efficiency program.

B & C. Impacts, Participants and Expenses

2018 YTD Results	Annual Forecast	Actual at 12/31/2018	Variation
Savings (MWH)	21,484	15,252	-6,232
Savings (MW)	1.72	5.06	3.34
Participants		276,327	
2018 Program Expenses		$825,279	

D. Qualitative Analysis

Highlights

In 2018, the Program distributed over 276,000 water measures in over 28,000 kits to Duke Energy Progress customers in the Carolinas. These kits delivered approximately 68,878 bath aerators, 28,043 kitchen aerators, 39,191 showerheads, and 140,215 feet of pipe insulation. In 1Q 2018, Duke Energy expanded redemption channels to include online store for customers who prefer to enroll in the program online. Online redemptions were 17% of all redemptions.

Issues

The program was successfully launched without any issues regarding ordering, fulfillment or support of the program. EM&V data shows a higher percentage of gas water heater customers participated in the

program in 2016 than expected. In 2017, the electric water heater propensity model was updated in order to reduce participation by customers with gas water heaters.

Potential Changes

In early 2019, the Program will add other energy efficient water saving products to the online ordering platform to allow customers to upgrade the products offered through the program and pay the difference during checkout.

E. Marketing Strategy

The overall strategy of the program is to reach residential customers who have not adopted low flow water devices. In 2Q 2018 the Company updated water kit materials to better educate customers on the benefits of low flow water devices. The updates also included streamlining the instruction manual to address installation barriers for consumers who have not participated in the program.

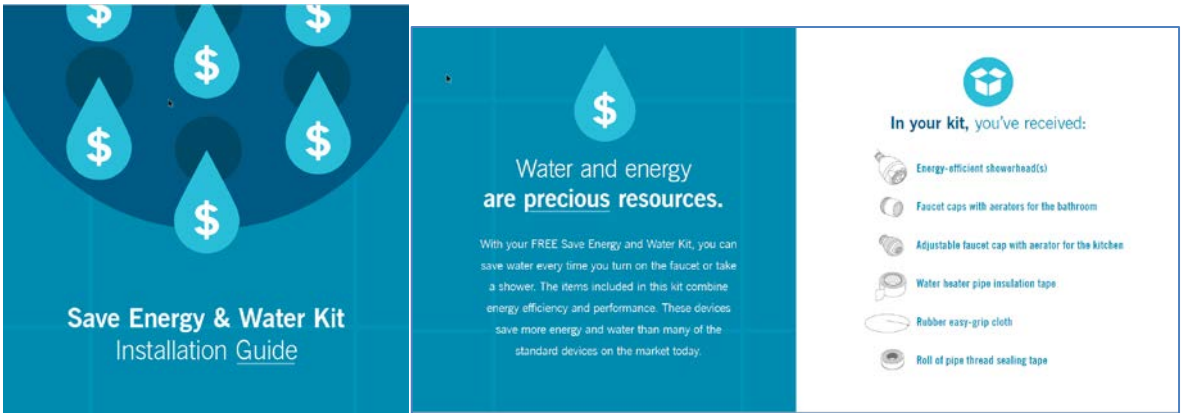
Both direct mail marketing in the form of BRCs and direct email are the current marketing channels being utilized by this program in the Carolinas. With the addition of online ordering and email as a marketing channel, the paper and cost associated with traditional mail solicitations has been reduced. Examples of the updated kit materials, direct mail, and direct email are included in the Appendix.

F. Evaluation, Measurement and Verification

No evaluation activities were conducted in 2018 for this program. Evaluation planning is expected to commence in 2019, with a final evaluation report tentatively scheduled for 2nd Quarter 2020.

G. Appendix

Save Energy and Water Kit Program Installation Guide



Showerhead Installation

Newer, top-of-the-line showerheads can help you save up to **2 gallons of water per minute** while maintaining water pressure and your comfort. For each energy-efficient showerhead installed, you save up to 52% on the energy used to heat water for showers.

What you'll need:

A. **Energy-efficient showerhead(s)**
B. **Rubber easy-grip cloth**
C. **Pipe thread sealing tape**
D. **Pliers**
E. **Rag (not included)**

SHOWERHEAD

1. **Remove your existing showerhead.**
Wrap the rubber easy-grip cloth around the base of your showerhead and turn counterclockwise (left) to loosen. Use pliers if necessary.

2. **Apply pipe thread sealing tape.**
Once showerhead is removed, wipe pipe threads with the rag to remove excess moisture and residue. Wrap two layers of pipe thread sealing tape across the threads to cover them.

3. **Install your new energy-efficient showerhead.**
Twist your new showerhead onto the threaded area of the shower arm in a clockwise direction (right).

4. **Test your showerhead.**
When you turn the water on, look closely at the connection between the shower arm and the base of the showerhead collar to see if water is leaking. If so, tighten with pliers.

5. **Adjust the water flow mode.**
Your new low-flow showerhead is equipped with two modes: massage and pulsating. Turn the outer ring all the way to the right for massage mode. Turn it all the way to the left for full-spray mode.

Faucet Aerator Installation

Mixing air with water reduces the amount of water needed. The aerator also maintains constant and satisfactory water pressure. Energy-efficient faucet aerators can **cut energy costs up to 46% annually** compared to non-energy-efficient aerators.

What you'll need:

A. **Faucet caps with aerators***
B. **Rubber easy-grip cloth**
C. **Pliers (optional)**

* If the aerator provided in this kit does not fit your faucet, call 866.807.1544 to request a free adapter.

FAUCET AERATORS

1. **Remove your existing faucet cap.**
Using the rubber easy-grip cloth, unscrew the existing faucet cap. If the faucet arm has threads on the inside (female), use male rubber washer. If it has threads on the outside (male), use female rubber washer.

2. **Install your new faucet cap with aerator.**
Align the threads on the inside of the faucet arm with the exterior threads of the new cap. Turn the faucet cap in a clockwise (right) direction and tighten fully with the rubber easy-grip cloth.

3. **Test your new aerator(s).**
While the water is flowing, look closely for any leaks at the threads. If you notice a leak or spray, tighten with the rubber easy-grip cloth.

TIP: Install your new tri-flow faucet cap in your kitchen
Use the dial to adjust the flow of water at three different rates. Try using the lowest setting for hand washing, the middle setting for washing dishes and the highest setting for filling pots or the sink.

Water Heater Pipe Wrap Insulation Tape Installation

Wrapping your water heater pipes is a simple way to manage water temperature in your home and **could save you nearly 17 percent on the energy used to heat water.**

What you'll need:

A. **Insulation tape**
(one roll = 15 feet of tape)
B. **Scissors (not included)**

PIPE WRAP INSULATION TAPE

1. **Locate the hot water pipe for your water heater.**
The hot water pipe extends out of the top or side of your water heater.
CAUTION: The hot water pipe will be very warm to the touch. Note the length of that pipe where it leads out of the electric water heater and up into the subfloor or walls of your home.

2. **Make sure the pipe is both clean and dry.**

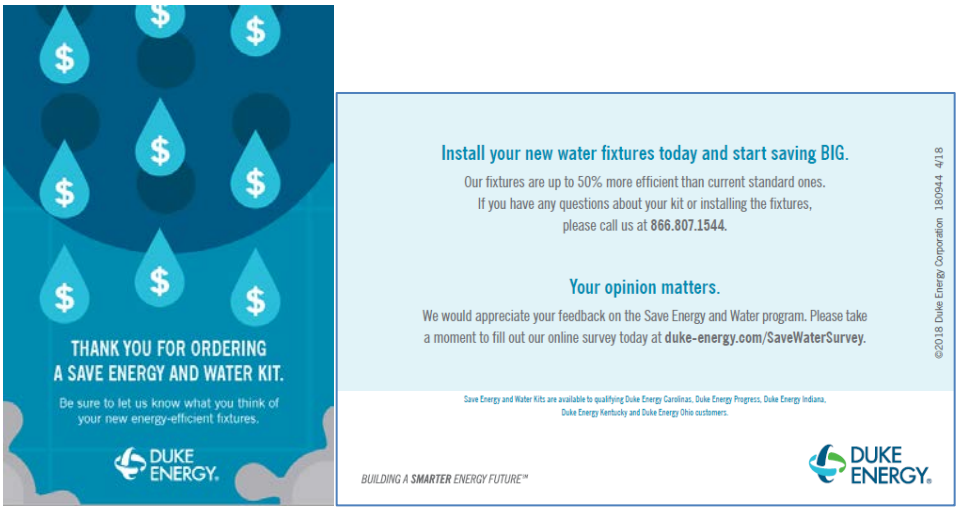
3. **Wrap your pipe with the tape.**
Carefully wrap the tape fully around the exposed length of the pipe, making sure that the edges of the tape meet each time you wrap it around the pipe for maximum insulation and energy savings.

Need help installing your energy-efficient equipment?

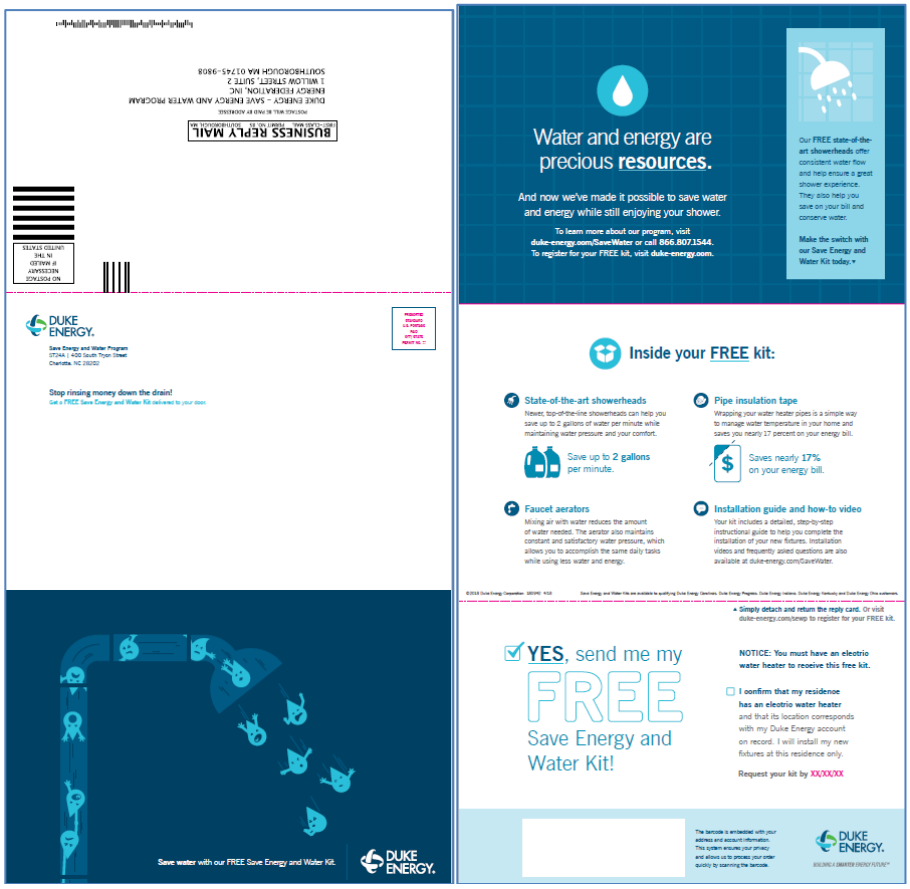
View our installation videos at **duke-energy.com/SaveWater** or call customer service at **866.807.1544** for assistance.

Save Energy and Water Kits are available to qualifying Duke Energy Carolinas, Duke Energy Progress, Duke Energy Indiana, Duke Energy Kentucky and Duke Energy Ohio customers.

Save Energy and Water Kit Program Thank You Survey Card

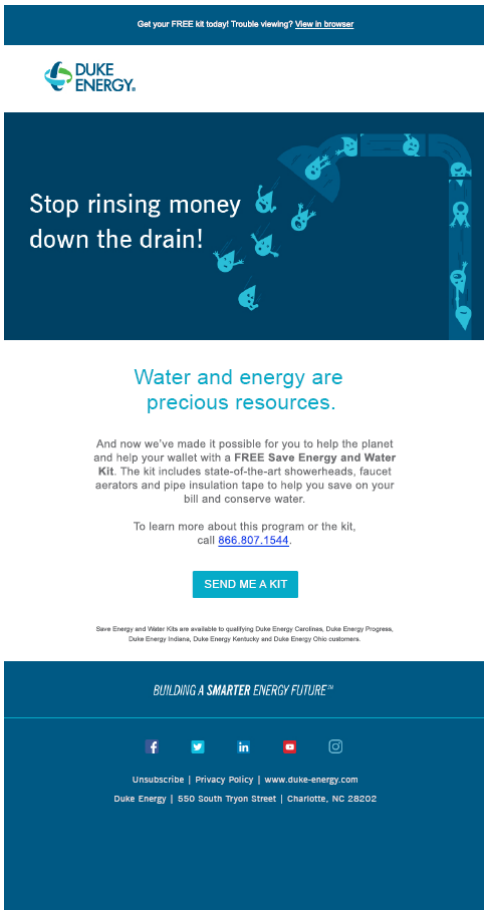


Save Energy and Water Kit Program Direct Mail



Save Energy and Water Kit Program Direct Mail

Save Energy and Water Kit Program Direct Email



EnergyWise Home Program

A. Description

EnergyWise Home ("Program") allows Duke Energy Progress, LLC ("Company") to install load control switches at the customer's premise to remotely control the following residential appliances:

- Central air conditioning or electric heat pumps
- Auxiliary strip heat on central electric heat pumps (Western Region only)
- Electric water heaters (Western Region only)

For each of the appliance options above, Program participants receive an initial one-time bill credit of $25 following the successful installation and testing of load control device(s) and an annual bill credit of $25 in exchange for allowing the Company to control the listed appliances.

Audience

The Program is available to all of the Company's residential customers residing in owner-occupied or leased, single-family, or multi-family residences.

B & C. Impacts, Participants and Expenses

2018 YTD Results	Annual Forecast	Actual at 12/31/2018	Variation
Savings (MWH)	N/A	N/A	N/A
Savings (MW)	386.11	391.03	4.92
Participants		197,740	
2018 Program Expenses		$14,619,512	

1 MW Savings at the meter include Summer MW for AC participants and Winter MW for Heat Strip and Water Heater Participants

D. Qualitative Analysis

Highlights

After receiving regulatory approval from both the North Carolina Utilities Commission and the South Carolina Public Service Commission late in 2008, the Company officially launched the Program in April of 2009. Comverge, which specializes in integrated demand response solutions, was awarded the contract for the load management system software and switch technology, and GoodCents was awarded the contract for enrollment, field implementation, and call center support.

The program has met or exceeded its customer acquisition and impact goals every year since its inception. The program has achieved approximately 14% market penetration in nine years with over 182,000 participants and full shed load impacts of 376 MW summer and 14.5 MW winter at the meter.

Potential Changes

On December 21, 2017 the company filed a modification to the current Load Control Rider LC-SUM to allow customer-owned smart thermostats to function as load control devices. This was approved by the NCUC on February 7, 2018 and the SCPSC on March 14, 2018. This Bring Your Own Thermostat (BYOT) Measure will be available to residential customers who agree to allow Duke Energy to temporarily control their eligible thermostats via the internet. We are currently working toward program launch.

E. Marketing Strategy

The Company continues to deploy Program marketing efforts through various channels that include but are not limited to the following:

- Door-to-door canvassing
- Outbound calling
- Duke Energy Progress website
- Email
- Direct mail (letters and postcards to qualifying customers)

Additional detailed program information is located at https://www.duke-energy.com/home/products/energywise-home

F. Evaluation, Measurement and Verification

During the Collaborative Meeting in November 2018, the Company presented the findings from the EM&V for the Winter program. Loggers were installed at a sample of participants' homes and a series of EM&V events were conducted during the winter months.

- The current DR capability of DEP's EnergyWise program in the winter is approximately 13 MW.
- The estimated average program impact of the six population events deployed in the winter of 2017/2018 was approximately 11 MW.
- The estimated impact per set of heat strips (that responded in some way to DEP's curtailment signal) controlled during the population events was 2.77 kW, and the estimated impact per responsive water heater during the same events was 0.41 kW.

A. Description

The purpose of this Program is to offer customers a variety of energy conservation measures that increase energy efficiency in existing residential dwellings. The Program utilizes a network of participating contractors to do the following: (1) to encourage the installation of high efficiency central air conditioning (AC) and heat pump systems with an optional add on measure such as Smart Thermostats, (2) to encourage attic insulation and sealing, (3) to encourage the installation of heat pump water heaters, and (4) to encourage high efficiency variable speed pool pumps.

Incentives are only applicable to measures installed by a contractor approved by Company

Duke Energy contracts with a third-party vendor for application processing, incentive payment disbursement, and customer/contractor support.

Audience

The Program is available to customers whose premise is at least one year old, who are served on a residential rate, and who meet the service delivery qualifications.

B & C. Impacts, Participants and Expenses

2018 YTD Results	Annual Forecast	Actual at 12/31/2018	Variation
Savings (MWH)	3,134	7,229	4,095
Savings (MW)	1.14	1.80	0.66
Participants		24,562	
2018 Program Expenses		$7,168,833	

D. Qualitative Analysis

Highlights

The Program's tiered incentive structure continues to receive a positive reaction from customers as well as Trade Allies. Reporting continues to show that the increased incentive amounts for higher SEER equipment has encouraged customers to have higher efficiency equipment installed properly and managed well.

The Referral Channel, which provides free, trusted referrals to customers who are trying to find reliable qualified contractors, has successfully generated roughly 21,000 customer referrals through 2018 exceeding the total number of referrals generated in all of 2017. Customers whose referral generates a sale for the Trade Ally were asked to rate their experience with the Referral Channel. The Referral Channel has improved their star rating from a 4.68 to 4.88 out of 5 stars during 2018. The program also continued to see a reduction in the incremental cost to the customer across all measures which was noted in the previous filing which was approved on February 25,2019. Additionally, the program staff is working on potential modifications to further improve cost effectiveness of the program for 2019 and beyond.

Issues

The participation of the Trade Ally network is vital to the success of the Program. The Program continues to try and shift the market away from some of the more commonly utilized practices which rely heavily on decentralized training and varying knowledge levels; imprecise, manual field calculations. Instead, the Program encourages Trade Allies to train and certify technicians to use quality diagnostic instruments and processes. The Company has not seen significant acceptance with the diagnostic-based measures because of the need for

expensive equipment, the need to obtain additional industry certifications and to alter current business practices. Historically, any additional cost associated with diagnostic readings, training or equipment purchases seem to be passed on to the customer and not absorbed thorough the companies offering as an added benefit. The program will continue to place emphasis on these best practices and continue offering additional training to the Trade Allies and modifications to program requirements when needed to build support.

E. Marketing Strategy

Promotion of the Program is primarily targeted to HVAC and home performance contractors. Trade Allies are integral to the Program's success because they interface with the customer during the decision-making event.

Program information and Trade Ally enrollment links are available on the Program's website to educate customers about the Program and encourage participation. By increasing the overall awareness of the Program and the participation of Trade Allies, more customers will consider the benefits of the Program at time of purchase.

Based on numerous customer engagement surveys and focus groups, the Program rebranded the referral channel, currently known as "Find It Duke," in March of 2018 with the intent of positioning Duke Energy as a trusted advisor for customers who are making energy related home improvements. Various customer marketing campaigns during 2018 leveraged channels such as direct mail, TV, radio, and email messaging in order to build awareness of the referral service. Other marketing efforts, such as a paid search and co-branded special offer campaigns with eligible referral contractors, manufacturers, and national retailers, also created awareness for the channel.

F. Evaluation, Measurement and Verification

Due to broader changes in the Program in 2016, and subsequent measure removals in 2017, there were no planned EM&V activities associated with the Program in 2018.

A. Description

My Home Energy Report ("MyHER") helps Duke Energy Progress ("DEP") customers put their energy use in perspective with simple and easily understood graphics that compare customers' energy use with homes of similar size, age and heating source. The reports motivate customers to change their behaviors and reduce their consumption by presenting them with timely tips and program offers.

My Home Energy Report Interactive links customers to a portal where they can complete a home profile, set savings goals and track their progress, get answers to their personal energy questions from an energy expert, and share their energy saving tips with other customers. Customers can also see how much electricity they might use in the coming months based on their usage history.

Audience

Program participants are identified through demographic information and must reside in an individually-metered, single-family residence served on a residential rate schedule and must have at least 13 months of electric usage with the Company. These customers receive up to 8 paper reports per year. Electronic versions of the report are distributed 12 times a year for customers who have enrolled in My Home Energy Report Interactive and/or who have a registered email address with the Company.

Customers who live in an individually-metered, multi-family dwelling served on a residential rate schedule and who have at least 13 months of electric usage with the Company may also participate. Multi-family customers who have registered their email address with the Company receive 4 printed reports and 12 electronic reports throughout the year. Multi-family customers without a registered email address with the Company receive 6 printed reports throughout the year with a strong call to action to provide their email address to receive more energy efficiency tips and information through additional reports delivered.

B & C. Impacts, Participants and Expenses

2018 YTD Results	Annual Forecast	Actual at 12/31/2018	Variation
Savings (MWH)	132,895	122,685	-10,210
Savings (MW)	36.11	20.78	-15.34
Participants		827,741	
2018 Program Expenses		$7,687,891	

D. Qualitative Analysis

As of December 31, 2018, over 737,000 DEP single-family customers and 90,000 multifamily customers were receiving the MyHER, and over 29,000 DEP single-family customers and over 1,700 multifamily customers were enrolled in the MyHER Interactive portal.

E. Marketing Strategy

Since the MyHER paper report is an opt-out program, customers who meet the eligibility requirements automatically receive the report. Less than 0.04% of single-family customers and .03% of multi-family chose to opt out. The MyHER Interactive portal is an opt-in portal. Marketing for the portal includes email campaigns and messages in the paper report and on its envelope.

Between March and April 2018, the Company offered a sample group of roughly 200,000 MyHER DEP customers the opportunity to purchase an *ecobee* Smart thermostat at a $50 discount. 70 thermostats were purchased by DEP customers. In July, those DEP customers who did not take advantage of the *ecobee* offer will be presented with a discounted offer on a Nest thermostat which resulted in an additional 18 Nest thermostats purchased.

F. Evaluation, Measurement and Verification

The next process and impact evaluation report, combined with DEP, is scheduled for completion in the second quarter of 2019. As is typical with MyHER evaluations, the impact evaluation will consist of a billing analysis to determine the consumption differences between the treatment group and the control group.

A. Description

The Multifamily Energy Efficiency program ("Program") provides energy efficient lighting and water measures to reduce energy usage in multi-family properties. The Program allows Duke Energy Progress ("Company") to target multi-family apartment complexes with an alternative delivery channel. The measures are installed in permanent fixtures by Franklin Energy, the program administrator, or by the property management staff. Franklin Energy oversees all aspects of the Program including outreach, direct installations, and customer care.

The Program helps property managers save energy by offering energy efficient lighting and water products. The Program offers LED lighting measures including A-Lines, globes, candelabras, recessed, and track bulbs, and water measures such as bath and kitchen faucet aerators, water saving showerheads, and pipe wrap. Water measures are available to customers with electric water heating. These measures assist with reducing maintenance costs while improving tenant satisfaction by lowering energy bills.

The Program offers a direct install ("DI") service by Franklin Energy. Franklin Energy installs the lighting and water measures during scheduled visits. Crews carry tablets to keep track of which measures are installed in each apartment. Alternatively, property managers have the option to complete the installations during routine maintenance visits. In these cases, the property maintenance crews track the number of measures they install and report these totals, by apartment, back to Franklin Energy. Franklin Energy then validates the information and submits the results to the Company.

After the installations are completed, Quality Assurance ("QA") inspections are conducted on 20 percent of the properties that completed installations in each month. The QA inspections are conducted by an independent third party. Any QA adjustments are provided to the Company to update participation records.

Audience

The target audience is property managers who have properties served on an individually metered residential rate schedule. To receive water measures, apartments must have electric water heating.

B & C. Impacts, Participants and Expenses

2018 YTD Results	Annual Forecast	Actual at 12/31/2018	Variation
Savings (MWH)	13,579	13,292	-287
Savings (MW)	1.84	1.74	-.09
Participants		288,092	
2018 Program Expenses		$2,409,743	

D. Qualitative Analysis

Highlights

Through December 2018, the Program completed installations at 101 properties, accounting for over 16,200 units. The Program installed 288,093 measures with lighting measures representing 69 percent of the total number of installations and water measures representing 31 percent. In 2018, the Program successfully added new LED bulb options to the offering for recessed and track fixtures, which have been well received by tenants and property managers. The new recessed and track LEDs approved in April represent 15% of the LEDs installed during 2018. Also in 3Q and 4Q 2018, the Program successfully added brushed nickel bath aerators and showerheads as an option. Added in late September, brushed nickel bath aerators represented 5% of total bath aerators installed.

Added in December, brushed nickel showerheads represented 1% of all total showerheads installed. Additionally, the Program expanded the criteria to serve all units in a complex and removed the requirement for 4 conjoined units so that all units within a complex can benefit from energy savings.

Issues

There are no issues to report.

Potential Changes

Program Management continues to evaluate new energy efficient measures for addition to the program.

New technology enhancements are being implemented to increase accuracy of recording measures installed, bulb wattages removed, increase efficiencies with scheduling units, and improved tracking of new opportunities from both the direct installers and energy advisors.

E. Marketing Strategy

As program implementer, Franklin Energy is responsible for marketing and outreach to property managers in the Company's service territory. Marketing is primarily done through outbound calls and on-site visits to gauge initial interest in the program. The Program also utilizes local apartment association memberships to obtain access to contact information for local properties and to attend association trade shows and events to promote the program. The Program was an exhibitor in the May 2018 AANC Conference in Raleigh, NC and generated over 50 leads for the region and 6 DEP property contacts.

A Multi-Family Energy Efficiency public website landing page is available for property managers to learn more about the Program. A program brochure and a frequently asked question sheet are available for download.

Other ways a property manager may learn more about this Program are through the MyDuke Portal, an online tool used to pay the utility bills of vacant units at their property. The MyDuke Portal presents a promo link that directs the user to the Program website for more information.

Once enrolled, Franklin Energy provides property managers a variety of marketing tools to create awareness of the Program among their tenants. The tools include letters to each tenant informing them of what energy efficient measures are being installed and when the installations will take place. Tenants receive educational leave-behind brochures when the installation is complete.

Feedback from both property managers and tenants is important for the Program's continued success. Property managers are provided with leave-behind materials about the program which also includes survey for them to complete and return. For tenants, the educational leave-behind brochure includes a satisfaction survey to return to Duke Energy. Online versions of both the Program Manager and Tenant surveys are also available.

After the installation, window clings are placed in strategic areas throughout the property. Placement of the window clings at a minimum will be at the common areas entry and each residential building on site (to the extent applicable). Using the window clings ensures that the program and Duke Energy are recognized long after the installation has taken place.

F. Evaluation, Measurement and Verification

The combined DEC/DEP EM&V evaluation began in April of 2018. The evaluation will determine the net annual energy and demand associated with the program participants between January 1, 2017, and May 1, 2018. The evaluator will use a combination of surveys, on site data collection, a lighting logger study, and engineering analysis to determine the impacts for the program. The final report is in

draft stage and should be complete in 1Q 2019.

Appendix

Tenant Letter-

Updated for new LEDs and safety messages

DUKE ENERGY.

Dear Resident:

Congratulations! Your property manager has enrolled your building in the Multifamily Energy Efficiency Program. Based on an assessment of your unit, a selection of these complimentary products may be installed to help reduce your monthly energy usage:

Straight Line, Globe and Candelabra LED Light-bulbs to replace your outdated incandescent lightbulbs

Water-saving showerheads to replace your existing fixtures

High-efficiency faucet aerators for your kitchen and bathroom sinks

Hot water pipe wrap to reduce heat loss

Trained technicians will perform the free installations in each unit on the date and time indicated below. The technicians will be accompanied by a member of the maintenance or management staff, who will provide access to your unit if you are not home at the time of installation. Additionally, the technicians will be in uniform with proper photo identification.

Technicians will be in your building:

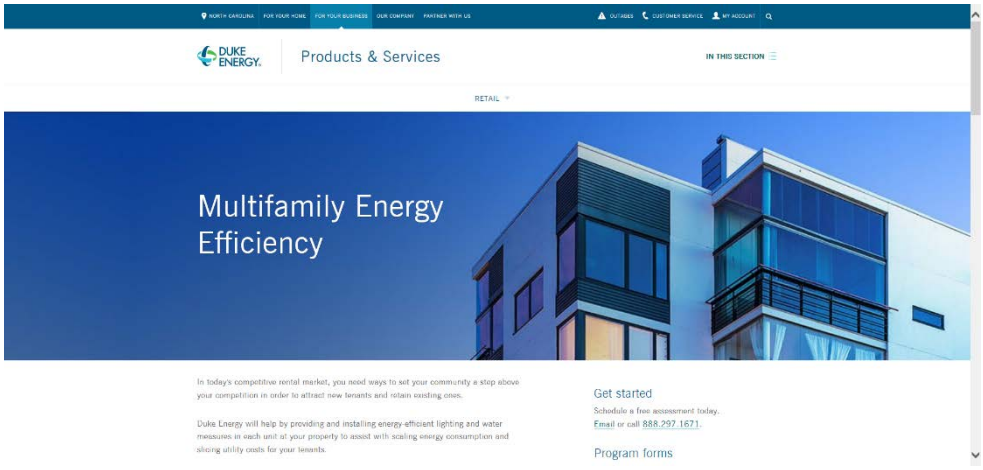
After the installations are completed, you will receive documentation and other educational materials about the energy-saving products that were installed free of charge in your unit. Included in these materials is a customer satisfaction survey that we would appreciate your completing.

For additional information about this offering, or other offerings from Duke Energy, contact the Multifamily Energy Efficiency Program at 888.297.1671, email dukeenergymultifamilyeep@franklinenergy.com or visit duke-energy.com/multifamily.

Thank you!

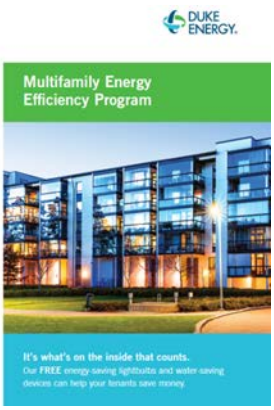
Multifamily Energy Efficiency Team

Program Web Page-



Program Brochure-

Updated for new LEDs and chrome aerators



Window Cling-

This property participated in Duke Energy's Multifamily Energy Efficiency program and now has energy-efficient products that benefit you.

DUKE ENERGY®

Tenant Leave Behind-

Updated for new LEDs, chrome aerators and Survey modifications

Multifamily Energy Efficiency Program

DUKE ENERGY.

Based on an assessment of your unit, these products were selected to offset your monthly energy usage:

Electric

Straight Line, Globe, Candelabra, Recessed and Track LED Lightbulbs

LEDs last longer and use up to 90 percent less energy than incandescent bulbs.

Water

(Water-saving products are only installed in properties that use electricity to heat water.)

Faucet aerators*

Faucet aerators installed in the kitchen and bathroom use up to 55 percent less water than standard faucet aerators.

Allows for adjustable flow

Showerhead*

An energy-efficient 1.5-gpm showerhead will use less water than a regular showerhead, which means you can also use less energy to heat the water.

Adjustable flow

Pipe wrap*

Hot water pipe wrap reduces water and energy use by preventing heat loss while hot water travels through the pipes.

*Provided only to properties that use electricity to heat water.

For more information, contact the Multifamily Energy Efficiency Program at 888.297.1671 or dukeenergymultifamilyeep@franklinenergy.com. Or, visit duke-energy.com/multifamily.

Note that this program is administered by Franklin Energy, a contractor of Duke Energy with experience in the installation of home energy-saving products.

Customer Survey

Property name:

Name:

Address: Unit No.: City: State: ZIP:

Email:

I was at home while the technicians installed the products. ☐ Yes ☐ No

What effect has your participation in the Multifamily Energy Efficiency Program had on your overall satisfaction with Duke Energy? ☐ Positive effect ☐ Negative effect ☐ No effect ☐ Don't know

ON A SCALE OF 1 TO 10, PLEASE RATE YOUR OVERALL SATISFACTION OR LEVEL OF AGREEMENT: 1=NOT SATISFIED/DISAGREE 10=VERY SATISFIED/AGREE	Not satisfied									Very satisfied
Overall, I was satisfied with the Duke Energy Multifamily Energy Efficiency Program.	0	1	2	3	4	5	6	7	8	9	10
The Technicians treated me with courtesy and my property with respect.	0	1	2	3	4	5	6	7	8	9	10
My questions were answered about the products installed.	0	1	2	3	4	5	6	7	8	9	10
Satisfaction with Light-Emitting Diode (LED bulb).	0	1	2	3	4	5	6	7	8	9	10
Satisfaction with Kitchen faucet aerators.	0	1	2	3	4	5	6	7	8	9	10
Satisfaction with Bathroom faucet aerators.	0	1	2	3	4	5	6	7	8	9	10
Satisfaction with Shower head.	0	1	2	3	4	5	6	7	8	9	10
Satisfaction with Pipe wrap.	0	1	2	3	4	5	6	7	8	9	10

Comments:

Thank you for participating in this program. We'd like to know how we did installing your new energy-saving products. Please complete the survey at left and mail it to us. The survey is also available online at **duke-energy.com/multifamilysurvey**.

A. Description

The purpose of this Program is to incent new construction that falls within the 2012 North Carolina Residential Building Code to meet or exceed the 2012 North Carolina Energy Conservation Code High Efficiency Residential Option ("HERO"). If a builder or developer constructing to the HERO standard elects to participate, the Program offers the homebuyer an incentive guaranteeing the heating and cooling consumption of the dwelling's total annual energy costs. Additionally, the Program incents the installation of high-efficiency heating ventilating and air conditioning ("HVAC") and heat pump water heating ("HPWH") equipment in new residential construction.

Audience

The Program is available to builders and developers installing high-efficiency HVAC and HPWH equipment in new single family, manufactured, and multi-family residential housing units that are served under any of the Company's residential rate schedules.

The program is also available to builders and developers of new single family and multi-family residential dwellings (projects of three or fewer stories) that comply with all requirements of the 2012 HERO standard and are served under any of the Company's residential schedules. Manufactured housing, multi- family residential housing projects over three stories in height, and any other dwellings which do not fall within the 2012 North Carolina Residential Building Code, are not eligible for any whole-house incentives.

The Program also supports the initial homeowner for any home constructed to meet or exceed the HERO standard when the builder or developer elects to extend a heating and cooling energy usage guarantee to the homeowner. At the sole option of the builder or developer, homeowners may be offered a Heating and Cooling Energy Usage Limited Guarantee for homes with a HERS Index Score verified by a certified HERS rater calculating the heating and cooling energy usage that the home should use during an average weather year.

B & C. Impacts, Participants and Expenses

2018 YTD Results	Annual Forecast	Actual at 12/31/2018	Variation
Savings (MWH)	16,048	14,263	-1,784
Savings (MW)	6.95	5.44	-1.51
Participants		11,275,657	
2018 Program Expenses		$13,189,949	

D. Qualitative Analysis

Highlights

The Program's move to a whole-house incentive structure that pays incentives to builders for HERO- compliant homes based solely on annual kWh savings continues to drive builders toward increasing savings. The Program requested approval from RESNET to offer 34 courses online for rater CEU□s. The Program has provided on-site instruction to over 400 builders and trade allies.

Currently there are 580 builders and 28 approved raters registered in the Program. For 2018 the Program invoiced homes for 326 builders from 23 raters. The top 10 builders in the Program contribute 40% of the savings. ICF is responsible for the operational oversight of Home Energy Raters and builders or developers participating in the Program.

Ekotrope, an energy modeling software that is a cloud-based HERS rating software, was evaluated and approved in May as an approved software for the Program.

Whole-House Requirement	Eligibility	Incentive
HERO	Meet 2012 NCECC HERO standards	$750
HERO plus HERS Score	Meet HERO standards and submit confirmed annual kWh savings from the Energy Summary Report.	$0.90/kWh
	Equipment Description	**Incentive**
Tier 1	AC or heat pump with SEER (Seasonal Energy Efficiency Ratio) of 14 or greater but less than 15. The HVAC system must meet the Quality Installation Standard of 90%. High Efficiency Heat Pumps: The unit(s) shall be a minimum SEER of 14 with ECM. High Efficiency Central AC: The unit(s) shall be a minimum SEER of 14 with ECM.	$250 per unit
QI	Quality Installation Standard (Optional for Tier 2).	$75 per unit
Tier 2	AC or heat pump with SEER of 15 or greater.	$300 per unit
Heat Pump Water Heater	ENERGY STAR® qualified HPWH(s) with minimum Energy Factor of 2.0.	$350 per unit

Issues

Air sealing in townhomes and multifamily projects continues to be a sticking point for many builders. While the North Carolina building code has specific requirements for fire-rated assemblies, there are different approaches being used to meet these requirements, and the acceptance and interpretations of these assemblies differs among code officials by jurisdiction. To assist builders, Program staff will work with various resources to identify code compliant separation wall assemblies and accepted air sealing methods. This information will provide builders and raters recommendations that will not only meet the code but also increase compliance with program standards. Program is partnering with NCBPA to perform technical research in support of the Program's interests in identifying townhome and multifamily assembly air sealing practices that meet or exceed minimum code and program requirements. BASF will provide technical support and research and development resources on an as-needed basis. Suppliers including Dow, Knauf Insulation and others will participate on an as-needed basis.

Potential Changes

The Program is considering modifying the incentives and eliminating non-cost-effective measures and measures that are no longer applicable. Those changes may include the following:

- Eliminate the existing tier structure for HVAC incentives;
- Remove incentives for HVAC equipment with a SEER of less than 15;
- Remove Quality Installation and Heat Pump Water Heater measures, as they are typically included when building to HERO standards and rarely implemented on a stand-alone basis.

E. Marketing Strategy

The Company drove awareness in 2018 through various marketing channels that include but are not limited to the following:

- Duke Energy Progress website
- Community outreach events/HBA Parade of Homes
- Social media promotions

These marketing efforts are designed to create customer awareness of builders participating in the Program and to educate customers on the quality, comfort and energy savings these homes offer. Please see Appendix for examples.

F. Evaluation, Measurement and Verification

Process and impact evaluation activities began in second quarter of 2017 and a final report delivered in the second quarter of 2018. Summary results were presented at the 4th Quarter 2018 DEC/DEP Collaborative.

The impact evaluation verified energy savings, demand savings, and savings from market effects attributable to the RNC program. The impact evaluation consisted of an analysis of participants' bills calibrated to building models. Net program savings will be determined through interviews with participant builders, non-participant builders and HERS raters.

The process evaluation focused on the new program processes and associated customer satisfaction as well as assessing their effectiveness and their impact on the broader RNC market.

G. Appendix

A. Description

The purpose of the Duke Energy Progress ("Company") Small Business Energy Saver program ("Program") is to reduce energy usage through the direct installation of energy efficient measures within qualifying non-residential customer facilities. All aspects of the Program are administered by a single Company-authorized vendor. Program measures address major end-uses in lighting, refrigeration, and HVAC applications.

Program participants receive a free, no-obligation energy assessment of their facility followed by a recommendation of energy efficiency measures that could be installed in their facility along with the projected energy savings, costs of all materials and installation, and the amount of the up-front incentive the Company. The customer makes the final determination of which measures will be installed after receiving the results of the energy assessment. The vendor schedules the installation of the energy efficiency measure at a convenient time for the customer, and electrical subcontractors perform the installation.

The Program is designed as a pay-for-performance offering, meaning that the vendor administering the Program is only compensated for energy savings achieved through the installation of energy efficiency measures.

Audience

The Program is available to non-residential customers that are not opted-out of the Company's EE/DSM rider and have an average annual demand of 180 kW or less per active account.

B & C. Impacts, Participants and Expenses

2018 YTD Results	Annual Forecast	Actual at 12/31/2018	Variation
Savings (MWH)	53,576	40,298	-13,277
Savings (MW)	9.94	6.67	-3.27
Participants		38,604,480	
2018 Program Expenses		$8,858,213	

D. Qualitative Analysis

Highlights

Lime Energy is the Company-authorized vendor administering the Program in both DEC and DEP service areas.

In 2018, the Program continued to be popular with the Company's small and midsize business customers, with over 1,200 Small Business Energy Saver projects completed though year end in DEP's North and South Carolina territories.

The Company has administered a customer satisfaction survey to Program participants since 2014. Customers continue to respond very positively to the Program, with 87% of all survey participants in 2018 rating their overall satisfaction with the Program experience at an 8 or above (out of a 10 scale). Also, the majority of Program participants continue to respond that the Program has improved their perceptions of Duke Energy, with 86% of responders indicating that the Program has had a positive effect on their overall satisfaction with the Company.

Issues

While LED lighting measures are expected to remain the primary driver of kWh savings in the Program

for the foreseeable future, the Company has been actively working with our vendor Lime Energy to implement initiatives focused on increasing refrigeration and HVAC measure adoption.

Potential Changes

Moving into 2019, the Company implemented a modification to the Program incentive design to offer higher, tiered incentives for deep energy retrofit projects with multiple measure technologies, actively incentivizing customers to undertake efficiency upgrades beyond lighting. Ultimately, the Company would like for the Program to encourage customers to take on more comprehensive energy efficiency upgrades to maximize energy savings.

As the Program matures, the Company will continue to evaluate opportunities to add incentivized measures suitable for the small business market to the approved Program which fit the direct install program model.

E. Marketing Strategy

The Program is marketed primarily using the following channels:

- Lime Energy field representatives
- Direct mail (letters and postcards to qualifying customers)
- Duke Energy Progress website
- Email & Duke Energy Business E-Newsletters
- Social media and search engine marketing
- Direct marketing & outreach via Program administrator
- Outreach via Duke Energy Business Energy Advisors
- Community events

All marketing efforts are designed to create awareness of the Program, to educate customers on energy saving opportunities, and to emphasize the convenience of participation for the target market.

F. Evaluation, Measurement and Verification

Evaluation activities began in the third quarter of 2017 and completed in the third quarter of 2018. Summary findings were presented at the 4th Quarter DEC/DEP Collaborative.

New process evaluation activities included a customer journey mapping exercise to assess the qualitative experience of the customer, and revealed key information such as loyalty, satisfaction, and frustrations with the program. These customer journey findings were used to refine the subsequent participant survey.

The impact evaluation included site visits to conduct field metering and verification. Other impact methodology included engineering estimates. Participant surveys determined free ridership and spillover as well as participant satisfaction with the program measures and the program overall.

Non-Residential Smart $aver Program

A. Description

The Non-Residential Smart $aver Program ("Program") provides incentives to Duke Energy Progress, LLC's ("DEP" or the "Company") commercial and industrial customers to install high efficiency equipment in applications involving new construction and retrofits and to replace failed equipment.

Commercial and industrial customers can have significant energy consumption but may lack knowledge and understanding of the benefits of high efficiency alternatives. The Program provides financial incentives to reduce the cost differential between standard and high efficiency equipment so that customers see a quicker return on their investments into high efficiency equipment and so that the money they save on utility bills can be reinvested in their businesses. Incentives are determined based on the Company's modeling of cost effectiveness over the life of the measure. In addition, the Program encourages dealers and distributors (or market providers) to stock and provide these high efficiency alternatives to meet increased demand for the products.

The Program provides incentives through prescriptive measures, custom measures and assessment/ technical assistance.

Prescriptive Measures:
Customers receive incentive payments after they install certain high efficiency equipment from the list of pre-defined measures, including lighting; heating, ventilating and air conditioning equipment; and refrigeration measures and equipment. A list of eligible equipment and measures and specific incentive amounts are available at the Program website: https://www.duke-energy.com/business/products/smartsaver.

Custom Measures:
The Smart $aver Custom Program is designed for customers with electrical energy-saving projects involving more complicated or alternative technologies or measures not covered by the Non-Residential Smart $aver Prescriptive Program. The intent of the Program is to encourage the implementation of energy efficiency projects that would not otherwise be completed without the Company's technical or financial assistance.

Unlike the Non-Residential Smart $aver Prescriptive Program, the custom program requires pre-approval prior to the project initiation. Proposed energy efficiency measures may be eligible for customer incentives if they clearly reduce electrical consumption and/or demand.

The two approaches for applying for incentives in this Program are Classic Custom and Custom-to-Go, depending on the method by which energy savings are calculated. The documents required as part of the application process vary slightly as well.

Currently the application forms listed below are located on the Company's website under the Smart $aver® Incentives (Business and Large Business tabs).

- Custom Application, offered in word and pdf format.
- Energy savings calculation support:
  - Classic Custom excel spreadsheet approach (> 700,000 kWh or no applicable Custom-to-Go calculator)
    - Lighting worksheet (excel)
    - Variable Speed Drive (VFD) worksheet (excel)
    - Compressed Air worksheet (excel)
    - Energy Management System (EMS) worksheet (excel)
    - General worksheet (excel), to be used for projects not addressed by or not easily submitted using one of the other worksheets
  - Custom-to-Go Calculator approach (< 700,000 kWh and applicable Custom-to-Go calculator)
    - HVAC & Energy Management Systems
    - Lighting (no project size limit)
    - Process VFDs
    - Compressed Air

Energy Assessments and Design Assistance:
Incentives are available to assist customers with energy studies such as energy audits, retro commissioning, and system-specific energy audits for existing buildings and with design assistance such as energy modeling for new construction. Customers may use a contracted Duke Energy vendor to perform the work or they may select their own vendor. Additionally, the Program assists customers who identify measures that may qualify for Smart $aver Incentives with their applications. Pre-approval is required.

The Company contracts with AESC to perform technical reviews of applications. All other Program implementation and analysis is performed by Duke Energy employees or direct contractors.

Audience

This Program is designed for all of the Company's non-residential customers billed on an eligible Duke Energy Progress rate schedule.

B & C. Impacts, Participants and Expenses

2018 YTD Results	Annual Forecast	Actual at 12/31/2018	Variation
Savings (MWH)	41,403	97,014	55,611
Savings (MW)	4.46	16.67	12.21
Participants		1,110,170	
2018 Program Expenses		$13,690,077	

D. Qualitative Analysis

Highlights

The prescriptive, custom, and assessment/technical assistance programs continue to generate substantial savings and customer satisfaction by leveraging internal staff focused on providing solutions to participants. Prescriptive measures foster high-volume participation for common retrofit projects, while custom programs seek ways to provide in-depth technical expertise required to bring in larger and more unique projects.

In 2018 the number of TAs grew, there are now 2,936 energy-efficiency equipment vendors, contractors, engineers, architects and energy services providers in the Carolinas who are registered as a trade ally (TA with the Smart $aver® Non-residential Programs (Prescriptive and Custom, DEC and DEP). The Smart $aver® outreach team builds and maintains relationships with TAs in and around Duke Energy's service territory. Existing relationships continue to be cultivated while recruiting new TAs remains a focus. Duke Energy's efforts to engage TAs include the following activities:

- TA Search tool located on the Smart $aver® website
- Inspections of a sample of all projects to ensure quality control
- TA co-marketing including information about the Smart $aver Program in the TA□s marketing efforts
- Online application portal training and support
- Midstream channel support
- TA year-end awards
- TA quarterly newsletter
- Technology- and segment-specific marketing collateral
- TA discussion group (20 trade allies that give input on the Program)
- TA training
- Sponsorship of TA events
- Online collateral toolkit for access to marketing materials

Non-Residential Smart $aver Program

The TA outreach team educates TAs on the Program rules and the Smart $aver Program expectations for TA conduct. The Company engages the TAs in promoting the Program as well as targeting TAs more effectively based on market opportunities.

An online application portal launched in 2016 and allows applicants to apply for incentives and track project progress throughout the submission process. The Company continues to consider ways to expand participation through new channels that offer instant incentives thus reducing the price of energy efficient products at the time of purchase and reducing or eliminating the need for a separate incentive application. In 2016, the Program launched an online energy savings store and a midstream marketing channel.

The Program has developed multiple approaches to reaching a broad and diverse audience of business customers through incentive payment applications, paper and online options, and instant incentives offered through the midstream marketing channel and the online energy savings store.
The 2018 results include:

- Customers showed high interest in energy efficiency and had significant funds to invest when combined with the rebates which offset a portion of the cost. The program activity in 2018 exceeded target by 134%.
- More customers were drawn to the easy-to-use midstream marketing channel, which contributed 54% of the 2018 prescriptive impacts.
- More applicants are using the online application, an easier way to apply
- Outreach continued to support TAs working with the Program
- Targeted marketing reached out to customers and TAs
- A dedicated team of customer service representatives answered customer questions via phone and email
- Large account managers and business energy advisors developed personal relationships with large and medium businesses and were able to identify and support new EE projects

Customers have several options to participate in the Prescriptive measures offered by the Program. The following chart summarizes 2018 participating customers by Program channel:

Prescriptive Program Option	Participating Customers*	% 2018 Repeat Customer
Paper and Online Application Form	690	63%
Midstream Marketing Channel	1,019	60%
Online Energy Savings Store	136	43%

*May include multiple facilities/sites for one customer.

During 2018, 1,156 applications, consisting of2,751 measures, were paid for Duke Energy Progress prescriptive measures. New application activity declined during the second half of 2018. During 2018, 61% of applications were submitted via the new online application portal. The average payment paid per application was $4,018. Duke Energy utilizes an internal database that allows the Program to self-administer applications and track data.

Many TAs participating in the application process reduce the customer's invoice by the amount of the Smart $aver® Prescriptive incentive and then receive reimbursement from Duke Energy. Customers often prefer this approach rather than paying the full cost of equipment upfront and receiving an incentive check from Duke Energy later.

The Program launched an optional new process for customers to pre-verify equipment eligibility for prescriptive incentives, which is designed to give customers certainty that their selected equipment qualifies for an incentive prior to purchase and will overcome another barrier that can delay investment in EE projects. In 2018, 821 applications for pre-qualification were approved for customer projects in NC and SC, many of which are already completed and paid.

The Duke Energy Business Savings Store on the Duke Energy website uses EFI, a the third-party that fulfills orders directly for the customers. The site gives customers the opportunity to take advantage of a limited number of prescriptive measure incentives by purchasing products from the on-line store at a purchase price

reduced by the amount of the incentive. The discounts in the store are consistent with current incentive levels.

The midstream marketing channel provides instant prescriptive incentives to eligible customers at a participating distributor's point of sale. Approved midstream distributors validate eligible customers and the lighting, HVAC, food service and IT products they selected to purchase through an online portal and use that information to show customers the reduced price of high efficiency equipment. Upon purchase, the distributor reduces the customer's invoice for the eligible equipment by the amount of the prescriptive incentive. Distributors then provide the sales information to Duke Energy electronically for reimbursement. The incentives offered through the midstream channel are consistent with current Program incentive levels.

Since 2016, DEP has partnered with Energy Solutions to provide an online portal for distributors to manage paperless validation and the online application, two features expected to drive growth significantly. In 2018, approximately 54% of the impact from prescriptive measure were from participation through the midstream marketing channel. Duke Energy currently has 238 distributors signed up for the midstream channel.

Smart $aver Custom participants continue to identify energy efficiency offers eligible under this Program. 150 new pre-approval applications were received in 2018. Smart $aver Custom Incentives Program uses a flat rate incentive. A flat rate incentive is available for both energy and demand savings.

The Program launched a fast track option in 2017 which gives customers the ability to pay to speed up the processing time for their applications to seven business days. This fee is passed through to the vendor for its cost to expedite the application.

In March of 2018 Lighting and HVAC tools were migrated from the Custom To Go platform to the new Smart Saver Tool web platform with plans to migrate the remaining tools later in 2018. Currently, for the lighting tool only, the customer is able to submit one file for both Prescriptive and Custom creating a single review look externally and reducing some of the burden off of the customer. To date we have received eight combined lighting applications for DEP.

Issues

Feedback from participating customers and TAs is positive overall and provides some insight into program participation. Less than 5% of surveyed customers report dissatisfaction with the Program. Reasons for being dissatisfied include unhappiness with the 90-day time limit to submit an application, communication issues, and changes in the qualified products list that the Program references for eligibility. Less than 10% of surveyed TAs report dissatisfaction with the Program, with the most frequent reasons offered being that applications are too complex or incentive payments too slow. In response, the Program continues to work to improve communications, streamline application forms and processing, and promote channels that have simpler application processes and faster incentive payments. Some TAs cited competition with the vendor implementing Small Business Energy Saver, which is not intended in either programs' designs. Duke Energy also continues to reach out to customers who have not yet participated in the Smart $aver® Program to gather feedback as well.

Recently, the combination of the Program's incentives and the low cost of LED equipment has been very attractive for customers, and many have taken advantage of the opportunity to invest in LED upgrades. While significant opportunity for high efficiency lighting upgrades still exists, the excitement around LEDs has taken customers' attention away from EE opportunities outside of lighting. The Program has continued to promote non-lighting EE and encourage customers to go beyond lighting for efficiency. The Company continues to work with outside consultants and internal resources to develop strategies for leveraging equipment supply/value chains and for increasing awareness of non-lighting measures going forward.

The Smart $aver Custom Program application process is considered burdensome by some customers due to the individual and technically intensive review all projects applying for custom incentives requires. Each year, the Program works to reduce the length of the application process, and the current process takes 17 days for all states/jurisdictions as a result.

The technical review often requires customers (or their vendors) to quantify the projected energy savings from the proposed project, a lengthy process that may require engineering expertise. Where necessary, this requirement will continue, thus ensuring that incentives are being paid for cost-effective verifiable efficiency gains. However, the Custom-to-Go suite and the online application portal have relieved some of this burden.

The custom program is subject to large fluctuations in performance due to the fact that a significant number of large projects can drive the majority of annual impacts.

Custom program performance remains limited by customers who are opted out of the EE Rider. Those customers are not eligible to participate, and any projects they may have completed are considered lost opportunities. The custom program is actively working with internal resources (large account managers and business energy advisors) to evaluate whether opting in to the EE Rider for a potential project is the best option for customers currently opted out.

Finally, the custom program continues to see changes in available technologies as specific measures become eligible for Smart $aver Prescriptive.

Potential Changes

Standards continue to change and new, more efficient technologies continue to emerge in the market. Duke Energy periodically reviews major changes to baselines, standards, and the market for equipment that qualifies for existing measures and explores opportunities to add measures to the approved Program so that it can provide incentives for a broader suite of energy efficient products. This work is ongoing, and a limited number of new measures and measure updates are expected to be made under the flexibility guidelines. For changes in existing measures, such as removing a measure or reducing the incentive amount, a 90-day grace period is extended to applications that were in process prior to the change.

Duke Energy is looking for new and innovative ways to reach out to customer segments that have had a lower rate of prescriptive incentive applications and considering options for partnering with other Duke Energy EE programs to cover gaps in the market. Additionally, the Program is planning to add limited quantities of new low-cost measures at no out-of-pocket costs to customers in 2019.

E. Marketing Strategy

The Company continued marketing the Program in 2018 through various marketing channels such as the following:

Direct mail (letters and postcards to qualifying customers)
Duke Energy Progress website
Community outreach events
Small Business Group outreach events
Paid advertising/mass media
Social media promotions
TA outreach
Account managers
Business energy advisors

A table listing the marketing campaigns during the first half of 2018, with some samples of marketing graphics, are included as an appendix. These marketing efforts are designed to create awareness of the Program, to educate customers on energy saving opportunities, and to emphasize the convenience of Program participation.

Non-residential customers learn about programs via targeted marketing material and communications. TAs, who sell equipment and services to all sizes of nonresidential customers, pass along information about incentives also. Company account managers target large businesses or assigned accounts directly while the Company's business energy advisors reach out to unassigned small to medium

business customers. The business energy advisors follow up on customer leads to assist with questions and to steer customers who are not already working with a TA to the referral tool. In addition, the business energy advisors contact customers with annual electrical costs between $60,000 and $250,000 to promote the Smart $aver Program.

Large Business Account Managers and Local Government and Community Relations, who identify potential opportunities as well as distribute program collateral and informational material to customers and TAs, comprise the internal marketing team. In addition, the Economic and Business Development groups also provide a channel to customers who are new to the service territory.

The Program launched a new marketing channel in 2017 called New Construction Energy Efficiency Design Assistance (NCEEDA) to identify projects for customers currently underserved in the small and medium business market. This channel utilizes the vendor Weidt Group to help find those opportunities, complete savings calculations as well as submit applications for the customer. As of January 20, 2019, 98 projects have enrolled in the DEP - NCEEDA offering, representing 10.6 million square feet of new construction along with 89 Smart $aver Custom project applications representing 26.5 million kilowatt hours of energy savings.

F. Evaluation, Measurement and Verification

Non-Residential Smart $aver Prescriptive Program

A final combined DEC and DEP impact and process report was received for the Non Residential Smart $aver Prescriptive program at the end the first quarter of 2018. The report covered projects completed between March 2016 and February 2017. The process report revealed that the participants overall satisfaction with their program experience was an average of 8.8 on a 10 point scale with 10 meaning extremely satisfied and 0 meaning extremely dissatisfied.

The impact report results indicated that the verified gross energy savings were 112% of deemed reported energy savings, and the gross summer peak demand reduction was 103 percent. The net-to-gross (NTG) ratio was estimated at .86.

Non-Residential Smart $aver Custom Program

An impact and process combined DEC/DEP evaluation was completed in the fourth quarter of 2018 and presented at the 4th Quarter DEC/DEP Collaborative. Methodologies to verify savings included desk reviews, onsite verification and billing analyses. Participant surveys helped establish net-to-gross.

Process evaluation activities included participant surveys and trade ally interviews. Key objectives for the process evaluation were to determine opportunities to improve program operations as well as gauge customer satisfaction with the program overall.

Appendix: Marketing schedule and examples

Month	Channel	Audience	Incentives Highlighted
January	Email	All Business Customers	Program Changes Teaser
February	Email	Commercial Real Estate	Good Better Best (All Measure Categories)
February	Email, Direct Mail	All Business Customers	Program Changes Announcement
March	Email	Manufacturing Customers	Good Better Best (All Measure Categories)
March	Email, Direct Mail	Commercial Real Estate, Lodging, Restaurants	Commercial Cooking Equipment
March	Email	Previous Program Participants	Smart $aver Tools
April	Email	Lodging Customers	Good Better Best (All Measure Categories)
April	Email, Direct Mail	All Small Business Customers	Commercial Refrigerator, Clothes Washer and Clothes Dryer
May	Email	Education Customers	Good Better Best (All Measure Categories)
May	Email	All Assigned Customers	Custom Tools
June	Email, Direct Mail	All Business Customers	Online Application Portal
August	Email	All Business Customers	Website Refresh
September	Email	All Business Customers	Rapid Payback (HVAC)
October	Email	All Business Customers	Rapid Payback (Operations & Maintenance)
October	Email	All Business Customers	Rapid Payback (Food Service)
October	Email	All Business Customers	Rapid Payback (Lighting)
November	Email	All Business Customers	Exterior Lighting

Non-Residential Smart $aver Program

January Program Changes Teaser – Email

March Good Better Best (Manufacturing) Campaign – Email
Landing Page - https://www.duke-energy.com/customer-landing-pages/good-better-best-mfg

Non-Residential Smart $aver Program

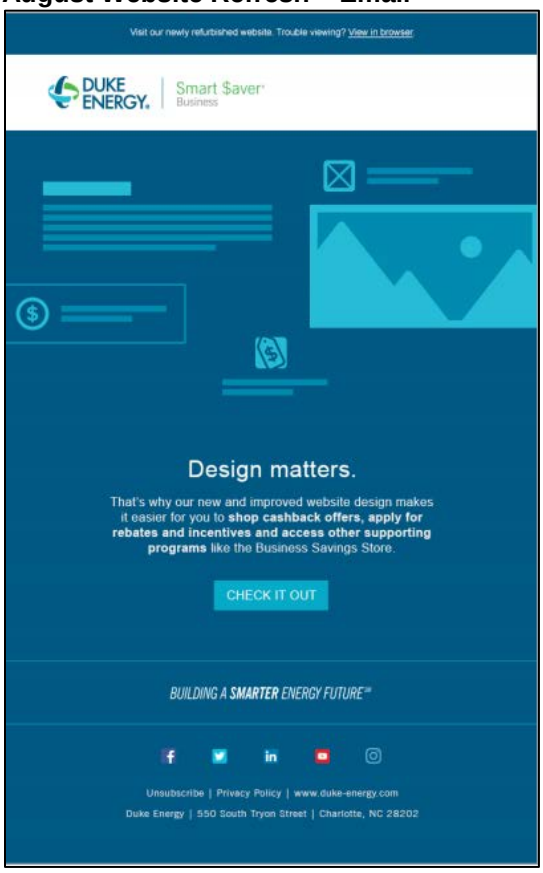
April Small Business Week Campaign – Email and Direct Mail (DM below)

Non-Residential Smart $aver Program

May Custom Awareness – Email

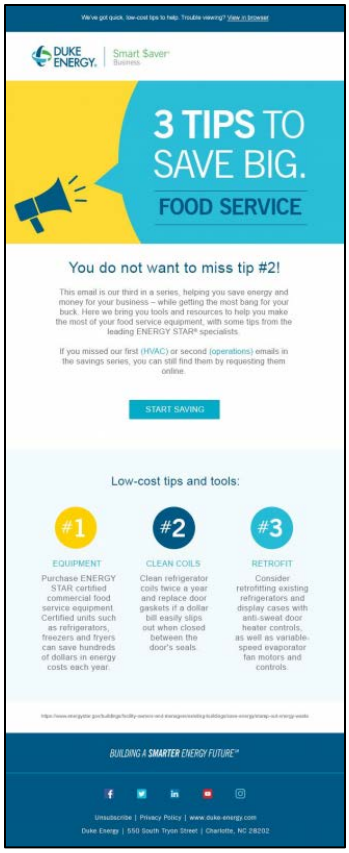
Non-Residential Smart $aver Program

August Website Refresh – Email

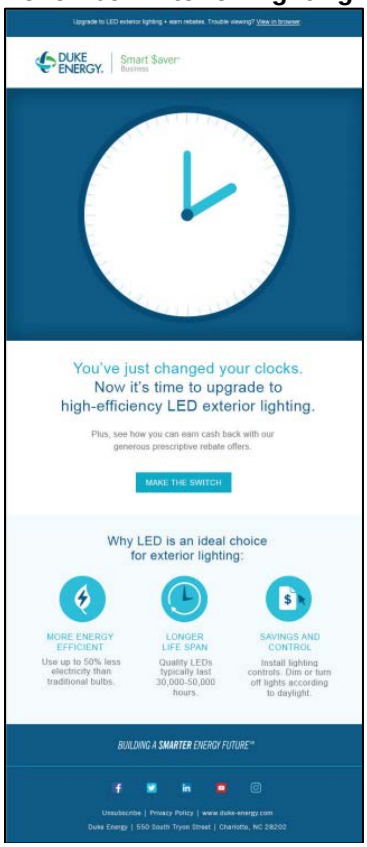


September Rapid Payback Campaign (HVAC) – Email

October Rapid Payback Campaign (Food Service) – Email



November Exterior Lighting – Email



Non-Residential Smart $aver® Performance Incentive

A. Description

Duke Energy Progress, LLC's (the "Company") Non-Residential SmartSaver® Performance Incentives (the "Program") offers financial assistance to qualifying commercial, industrial and institutional customers to enhance their ability to adopt and install cost-effective electrical energy efficiency projects.

The Program encourages the installation of new high efficiency equipment in new and existing nonresidential establishments as well as efficiency-related repair activities designed to maintain or enhance efficiency levels in currently installed equipment. The Program provides incentive payments to offset a portion of the higher cost of energy efficient installations that are not eligible under either the Smart $aver® Prescriptive or Custom programs. The types of projects covered by the Program include projects with some combination of unknown building conditions or system constraints, or uncertain operating, occupancy, or production schedules. The specific measures incentivized are stated in the agreement with the customer. The Program coordinates closely with the existing custom program team and shares resources for administrative review and payment processing. The Program requires pre-approval prior to project initiation. Only projects that demonstrate that they clearly reduce electrical consumption and/or demand are eligible for incentives.

The intent of the Program is to broaden participation in non-residential efficiency programs by being able to provide incentives for projects that previously were deemed too unpredictable to calculate an acceptably accurate savings amount, and therefore ineligible for incentives. This Program provides a platform to understand new technologies better.

The key difference between the Performance Incentive Program and the custom program is that the performance incentive customers get paid based on actual measure performance. A plan is developed to verify actual performance of the project upon completion and is the basis for the performance portion of the incentive.

The incentive is typically paid out on the following schedule, though the quantity & timing of payment installments may vary:

- Incentive #1: For the portion of savings that are expected to be achieved with a high degree of confidence, an initial incentive is paid once the installation is complete.
- Incentive #2: After actual performance is measured and verified, the performance-based part of the incentive is paid. The amount of the payout is tied directly to the savings achieved by the measures.

The Company contracts with Alternative Energy Systems Consulting, Inc. (AESC) to perform technical review of the applications. All other program implementation is performed by Duke Energy employees or direct contractors.

Audience

All of the Company's non-residential electric accounts billed on qualifying rate schedules are eligible, except accounts that are opted out of the rider.

B & C. Impacts, Participants and Expenses

2018 YTD Results	Annual Forecast	Actual at 12/31/2018	Variation
Savings (MWH)	1,729	1,519	-210
Savings (MW)	0.20	0.13	-0.07
Participants		37	
2018 Program Expenses		$201,559	

D. Qualitative Analysis

Non-Residential Smart $aver® Performance Incentive

Highlights

As new technologies are introduced and changes occur in the energy efficiency marketplace, Performance Incentives is the perfect tool to influence and reward customers who invest in energy efficiency. The Smart $aver Performance Incentives program was launched in January 2017. Efforts to encourage internal resources, trade allies, and vendors who sell energy efficient equipment to promote the Program and assist customers who could participate are continuous and on-going.

In DEP, the Program is beginning to see a significant increase in program interest and participation. Currently there are:

- 14 enrolled projects
- 106 individual project sites
- 5.2 million kWh of potential savings (realization of kWhr impacts over multiple years: 2018-2020)

The program is subject to large fluctuations in performance due to long project lead times, long monitoring and verification times, and the timeliness and size of the projects. With a compelling value proposition and with internal resources and trade allies getting comfortable with this unique program offering, participation is expected to continue to be strong.

Issues

Program management is monitoring the following areas of interest that could affect participation:

- The preferred method for measuring and verifying a project's performance is accomplished by gathering, monitoring and analyzing customer billing history. However, if energy savings are not significant, an effective evaluation with billing information may not be possible. If this is the case, sub-metering is required at the customer's expense, and the time and expense may be a hurdle to participation.

- The Performance program cannot be offered to customers who are opted-out of the EE Rider. Performance projects can easily carryover into multiple calendar years because of the monitoring and verification requirement. The extended timeframe could make opting-in more difficult to justify.

Potential Changes

The Company will continuously consider functional enhancements to enhance participation, processing speed, and program efficiency.

E. Marketing Strategy

The 2018 marketing strategy for the Smart $aver Performance Incentive Program aligned closely with the Custom Program. The goal is to educate non-residential customers about the technologies incentivized through both programs, as well as the benefits of installing energy-efficient equipment. These efforts utilize a multi-channel approach, which includes the following:

- Email
- Direct Mail (letters to qualifying customers)
- Duke Energy Progress website
- Webinars
- Small Business Group outreach events
- Paid advertising/mass media
- Industry Associations

- Large Account Managers
- Business Energy Advisors
- Trade Ally Outreach

These marketing efforts are designed to create awareness of the Program, to educate customers on energy saving opportunities, and to emphasize the convenience of participating.

Non-residential customers are informed of programs via targeted marketing material and communications. Information about incentives is also distributed to trade allies, who in turn sell equipment and services to all sizes of non-residential customers. Large business or assigned accounts are targeted primarily through assigned Company account managers. Unassigned small to medium business customers are supported by the Company's business energy advisors. The business energy advisors follow up on customer leads to answer questions and steer customers who are not already working with a trade ally to the trade ally search tool. In addition, the business energy advisors contact customers with electrical costs between $60,000 and $250,000 to promote the Non-Residential Smart $aver Program.

The internal marketing channel is comprised of assigned Large Business Account Managers, Business Energy Advisors, and Local Government and Community Relations who all identify potential opportunities as well as distribute program collateral and informational material to customers and trade allies. In addition, the Economic and Business Development groups also provide a channel to customers who are new to the service territory.

F. Evaluation, Measurement and Verification

Since the Program was launched in January 2017, no evaluation activities occurred in 2018. Future evaluation timing will depend upon sufficient participation.

A. Description

The Duke Energy Progress, LLC's ("Company") EnergyWise Business ("Program") is an energy efficiency and demand response program for non-residential customers that allows the Company to reduce the operation of participants' AC units to mitigate system capacity constraints and improve reliability of the power grid. The Program provides customers with options for how they would like to participate. In exchange for participation, the Company provides participants with an annual incentive applied directly to their bill.

Program participants can choose between a Wi-Fi thermostat or a load control switch which is professionally installed for free for each air conditioning or heat pump unit at the premise. In addition to choosing the equipment, the participants can also choose at what cycling level they would like to participate: 30%, 50%, or 75%. During a conservation period, the Company sends a signal to the thermostat or switch to reduce the amount of time the unit is running by the percentage the participant selected. For participating at the 30% level, the customer receives a $50 annual bill credit for each unit, $85 for the 50% level, or $135 for the 75% level. Additionally, participants with a heat pump unit with electric resistance emergency/back up heat that choose the thermostat can also participate in a winter option which allows the Company to control the emergency/back up heat. For 100% control of the emergency/back up heat, the Company provides an additional $25 annual bill credit.

Participants choosing the thermostat have access to a portal that allows them to control their units from anywhere with internet access. They can set schedules, adjust temperature set points, and receive energy conservation tips and communications from the Company. In addition to the portal access, participants also receive notifications of upcoming conservation periods. These notifications allow participants to make adjustments to their schedules or notify their employees of the upcoming conservation period. Participants are allowed to override two conservation periods per year without penalty. They can activate an override before or during the conservation period.

Audience

The Program is available to existing non-residential customers that are not opted-out of the DSM Rider, have at least one air conditioner or heat pump that operates to maintain a conditioned space on weekdays during the calendar months of May through September, and are not served under Schedules LGS-RTP and SI, Riders NM, DRA, 57, 68 IPS, LLC or NFS. Also, customers must have an average minimum usage of 1,000 kWh during those same calendar months.

B & C. Impacts, Participants and Expenses

2018 YTD Results	Annual Forecast	Actual at 12/31/2018	Variation
Savings (MWH)	2,158	38.2	-2,120
Savings (MW)	10.54	2.66	-7.88
Participants (EE & DR)		5,426	
2018 Program Expenses		$2,108,030	

D. Qualitative Analysis

Highlights

During 2018, the Program continued to experienced growth. The Program enrolled almost 2,500 accounts and completed installation on over 1200 accounts adding over 2,200 installed devices. The total number of installed devices at the endo of 2018 is 4,250. The door to door marketing (canvassing) efforts have continued to be the most productive marketing efforts producing enrollments, installations and positive customer interactions. During 2018 canvassing was expended to Florence, SC and Wilmington NC. The Program is now canvassing in Raleigh, the greater Raleigh region, Asheville areas, Wilmington and Florence SC. Through the canvassing efforts we touched over 10,000 customers during 2018.

Issues

One factor impacting the Programs overall performance in the high number of customer selecting to enroll in the 30% cycling option. 80% of our customers are participating on this option. The assumption when the program was filed projected 50% of the customers would select this option. Also, over the second half of the year the program experienced an increase in the number of customers that failed to reschedule their installation appointment. To help try and recapture some of these customers we are implementing a reoccurring monthly email targeting these customers. Finally, if was found during our M&V that the technicians were not doing a consistent job in promoting the Winter option to customers with heat pumps. We have addressed this with our technicians and we have also implemented a reoccurring email to those customers that have the heat pumps and selected the thermostat.

Potential Changes

To address this, the Program is going to work with the canvassers to improve their pitches to promote the higher cycling options. We will follow those changes with compensation modifications to support the promotion of the higher cycling options. Also, the program is evaluating the possibility of adding additional thermostat options to offer customers during the install. The new thermostat will reduce the number of installs that are turned down due to the current version not having features used by the customer.

E. Marketing Strategy

In 2018, the Program has continued to use a dedicated canvassing vendor for door-to-door marketing in Raleigh, the greater Raleigh region, and Asheville. Additionally, the Program continues to see enrollments as a result of cross promotion efforts with the Small Business Energy Saver program and the Duke Energy Business Energy Advisors.

F. Evaluation, Measurement and Verification

During the Collaborative Meeting in November 2018, the Company presented the findings from the second evaluation of the Program. The program called five summer Conservation Period demand response events in 2017. Results of the process evaluation showed participants rated the following highly:

- the time required to install their device (mean of 9.4,
- the training received during installation (mean of 9.3),
- and the representative that installed their device (mean of 9.2).

DEP participants reported lower satisfaction with participation in Conservation Periods (mean of 7.2) and with their use of the program's online portal (mean of 8.2).

Per Participant Weighted Average Summer Coincident Savings (kW) were determined to be .79 and Per Participant Average Annual kWh impacts were determined to be 18.

A. Description

Demand Response Automation ("Program") allows Duke Energy Progress, LLC ("Company") to install data acquisition and optional load control devices to remotely monitor and control the following electrical equipment:

HVAC
Lighting
Standby generation
Variable speed motors
Non-critical, interruptible operations

Program participants agree to reduce their total metered demand by the seasonal contracted kilowatt (kW) amount during the time specified in the event notification. Participants may reduce their demand using any method, including the use of other power sources. In return, these businesses receive valuable incentives as follows:

1. A one-time participation incentive of $50/kW for demonstrated demand reduction during initial summer event(s) on the program,
2. Monthly credits of $3.25/kW for the contracted amount of curtailable demand, and
3. Performance credits of $6/kW for demand reduced during each curtailment event.

Audience

The Program is available to commercial, industrial and governmental customers with a service base that is capable of contracting for a minimum of 75 kW in curtailable demand. Some exclusions apply based on rate schedules and participation in other riders.

B & C. Impacts, Participants and Expenses

2018 YTD Results	Annual Forecast	Actual at 12/31/2018	Variation
Savings (MWH)	N/A	N/A	N/A
Savings (MW)	33.63	22.59	-11.04
Participants		69	
2018 Program Expenses		$1,692,473	

D. Qualitative Analysis

Highlights

Recruitment of new participants continues to be a challenge. Final EPA regulations prevent many originally targeted customers with older standby generators from participating in the program, while the rider minimum of three annual curtailment events remains a deterrent to many industrial customers. Larger customers interested in demand response programs also have an alternative through Rider LLC that does not have the DSM/EE Opt-In requirement.

The Company dispatched the program seven times in 2018, with four curtailments in January due to high system peak loads during polar vortex events and three curtailments during the summer to meet rider minimums.

Potential Changes

No further changes to the program are anticipated.

E. Marketing Strategy

The Company continues to market the Program directly through Large Account Management and has expanded efforts to reach eligible unassigned customers through various channels that include but are not limited to the following:

Direct mail (letters and postcards to qualifying customers)
Duke Energy Progress website
Email
Video
Trade event presence
Promotion by the new Medium Business Energy Advisors team
Additional detailed program information is located at www.duke-energy.com/dra.

F. Evaluation, Measurement and Verification

The 2017 EM&V of this program was presented in the Collaborative meeting in November 2018. The evaluation for the program had the following objectives: to replicate the DEP settlement algorithm, to validate the settlement impacts reported by DEP, to estimate verified impacts using a regression-based approach with day-of load adjustment, to estimate average kW event load shed per meter, by sector, and for the program. The 2017 analysis found the following:

- DEP called three events in 2017. The program included 20 customers, spanning 45 site locations and 69 electric meters.
- The program achieved a verified average of 19.3 MW per event.
- The average impact per meter was about 300 kW, with impacts as low as about 33 kW and as high as over 2,800 kW for individual meters.